



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,529	05/22/2000	Yoshiaki Inoue	Q58052	2338

7590 11/21/2003
Sughrue Mion Zinn Macpeak & Seas PLLC
2100 Pennsylvania Avenue N W
Washington, DC 20037-3213

EXAMINER

ROGERS, SCOTT A

ART UNIT	PAPER NUMBER
----------	--------------

2626

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,529

Applicant(s)

INOUE, YOSHIAKI

Examiner

Scott A Rogers

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Curry (US 5,696,604).

Referring to claim 1:

While the preamble refers to binary or multi-valued image out of digital image data representing “a single color component or a plurality of color components”, since none of the limitations in the body of the claim refer to color component image data, no patentable weight has been given to this language in the preamble.

Curry discloses a method of tone reproduction of an image with halftone dots by forming dots arranged at regular intervals and having different sizes on an image reproduction medium based on a multi-valued image data, comprising the steps of:

growing the halftone dots in a circular or elliptical shape in a first transformation zone from a halftone percentage of 0 % to a first highlight percentage (col. 4, lines 50-52, and col. 5, lines 26-30);

growing the halftone dots while changing from the circular or elliptical shape to a square or rhomboidal shape in a second transformation zone from the first highlight

Art Unit: 2626

percentage to a second highlight percentage greater than said first highlight percentage (col. 4, lines 42-46, and col. 5, lines 31-33);

growing the halftone dots in a square or rhomboidal shape in a third transformation zone from the second highlight percentage to a second shadow percentage (col. 4, lines 42-46, and col. 5, lines 34-36);

growing the halftone dots while changing from the square or rhomboidal shape to a circular or elliptical shape in a fourth transformation zone from the second shadow percentage to a first shadow percentage greater than said second shadow percentage (col. 4, line 53, and col. 5, lines 37-39); and

growing the halftone dots in a circular or elliptical shape in a fifth transformation zone from said first shadow percentage to a percentage of 100 (col. 4, lines 54-56, and col. 5, lines 40-42).

Referring to claim 2:

The second highlight percentage is at most 48% and said second shadow percentage is at least 52%. In Curry, this corresponds to the last stage in dot growth 42" (40) in Fig. 5B to first stage in dot growth (44) in Fig. 5C.

Referring to claim 3:

In curry, when the halftone dots are grown in the square or rhomboidal shape, they are successively grown along each of the sides thereof while minimizing any displacement of the center of gravity of the halftone dots as can be seen in Figs. 5C-5D.

Referring to claim 4:

Referring to the apparatus for performing the method set forth in claim 1, the dot area parameter calculator 28 in Curry (col. 4, lines 57-66) corresponds to the claimed first, second, third, fourth, and fifth halftone dot generating means and performs the corresponding functions as recited above.

While the preamble refers to "a halftone plate", none of the limitations in the body of the claim refer to a halftone plate. However, Curry contemplates an apparatus for output of a halftone plate (see col. 3, lines 63-66).

Referring to claims 5-6:

Claims 5-6 correspond directly to the features recited in claim 2-3 addressed above.

Referring to claim 7:

The halftone plate expressing highlight and shadow areas of a subject with sizes of halftone dots, comprising a first, second, third, fourth, and fifth halftone plate section with the halftone dots grown as recited above with respect to the corresponding steps of method claim 1, is contemplated by Curry (see col. 3, lines 63-66).

Referring to claims 8-9:

Claims 8-9 correspond directly to the features recited in claim 2-3 addressed above.

Referring to claim 10:

The printed material expressing highlight and shadow areas of a subject with sizes of halftone dots, comprising a first, second, third, fourth, and fifth print section with the halftone dots grown as recited above with respect to the corresponding steps of method claim 1, is contemplated by Curry (see col. 3, lines 60-62).

Referring to claims 11-12:

Claims 11-12 correspond directly to the features recited in claim 2-3 addressed above.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Rylander patents disclose halftone color reproduction using screens with halftone dot centers equally spaced and dot growth patterns similar to applicant's. Shiomi et al disclose a halftone dot growth pattern similar to applicant's and has a process for compensating for dot gain characteristics when different types of dots are applied to one image. Hamilton has a unique representation set for reconstructing selected elliptical dots in a dot growth pattern, the growth pattern being similar to applicant's (note Figs. 4A-4I and 5B). Peller shows a halftone dot growth pattern similar to applicant's (note Fig. 5). Delabastita also discloses a halftone dot growth pattern similar to applicant's (see abstract). The EP1054559A2 reference is applicant's EPO patent application publication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A Rogers by telephone at 703-305-4726 and by e-mail address at scott.rogers@uspto.gov.

The official fax number for Technology Center 2600 where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2600 Customer Service at 703-306-0377.

17 November 2003


SCOTT ROGERS
PRIMARY EXAMINER